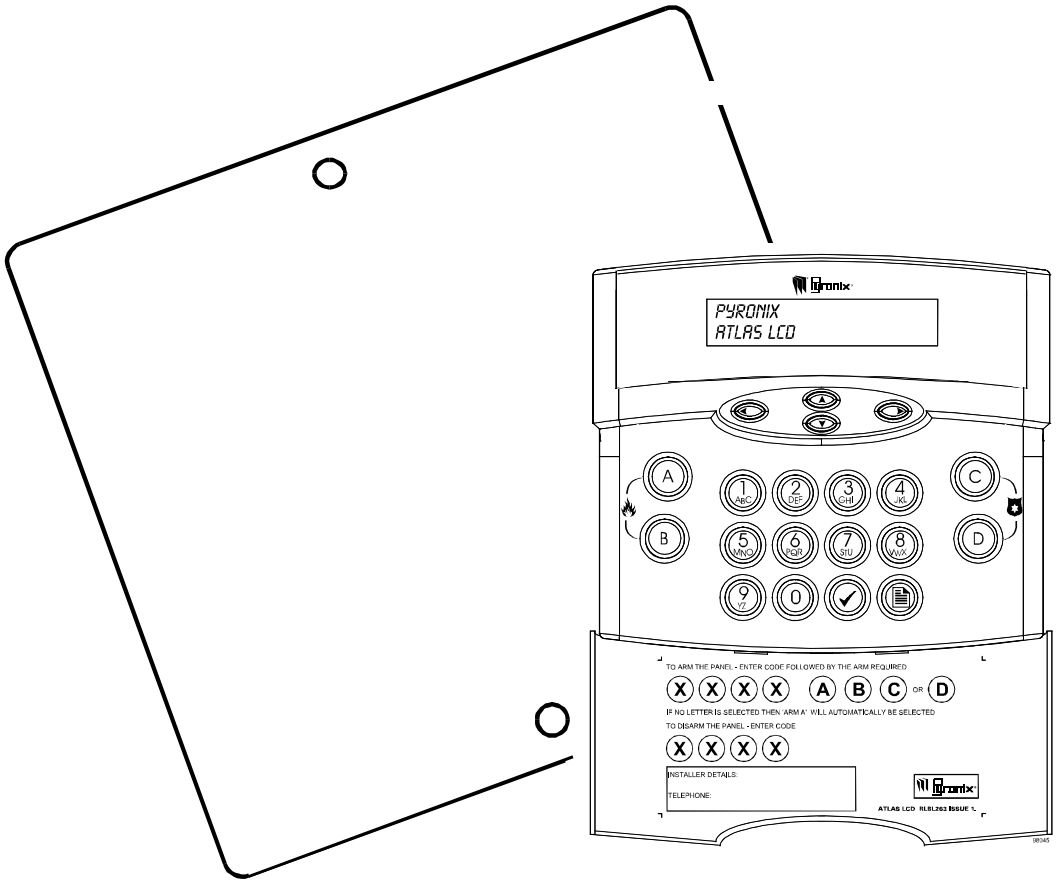
ATLAS 8

INSTALLATION INSTRUCTIONS

Lcd Remote Keypad


PYRONIX
ATLAS LCD
TO ARM THE PANEL - ENTER CODE FOLLOWED BY THE ARM REQUIRED
IF NO LETTER IS SELECTED THEN 'ARM A' WILL AUTOMATICALLY BE SELECTED
TO DISARM THE PANEL - ENTER CODE
INSTALLER DETAILS:
TELEPHONE:

Pyronix Ltd

MARCH 00

This Product is approved for use in the
Residential, Commercial and Light Industrial Environment.

CE

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WARRANTY
This product is sold subject to our standard warranty conditions and is warranted against defects in workmanship for a period of 2 years. In the interest of continuing improvement of quality, customer care and design, Pyronix reserve the right to amend specifications without giving prior notice.

A copy of our warranty can be obtained from the above address.

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1 INTRODUCTION

The Atlas 8 is a fully featured intruder alarm control panel, based around a micro-controller with 8 fully programmable zones. It may be operated via a single Remote Keypad, a maximum of 3 remote keypads (Atlas RKP's) may be fitted at convenient points around the premises. Each keypad has an arrangement of 8 LED's to show the status of the system, and a 7-segment display to show programming data and events held in the event-log memory.

All features are fully programmable and there are three levels of access to the system.

The Limited User codes allow access to the basic functions needed for everyday Setting and Unsetting of the system.

The Master User level gives access to all Setting and Unsetting facilities, but also allows the changing of code numbers and testing of the system.

The Engineer level gives total access to the system including the ability to reconfigure the system and reset the system event-log memory. The Engineer cannot, however, Unset the system.

2 SAFETY

The 17V a.c. supply to the control panel is connected into the PCB terminal blocks marked 17~. Signal wires to detectors, etc., should be securely tied together on completion of the installation, to prevent the possibility of a safety hazard in the event of a wire becoming loose.

This equipment is not suitable for location in bathrooms or damp conditions.

3 ACCESS LEVELS

3.1 **Limited User** Level Enables:
1. Panel Setting and Unsetting with a unique pass code.
2. Enabling or disabling of the door chime facility.
3. Event log viewing.

3.2 **Master User** Level Enables:
All Limited User facilities.
4. Clearing of event log (if allowed by the Engineer).
5. Omitting zones.
6. Alteration of both Limited and Master User codes.
7. LED / Strobe / Bell / Extension Speaker test facility.
8. Walk test facility for all four Set modes.
9. Programmable output operations.
10. Remote Dial in enabling.

3.3 **Engineer** Level Enables:
a. All Master User facilities except Unsetting.
b. Zone programming for all four Set modes.
c. Bell timer setting.
d. Entry / Exit timer settings.
e. Alteration of Engineer code.
f. Enabling or Disabling of Event log reset by Master user.
g. Programming of communication and programmable output options.

4 FUNCTIONAL DESCRIPTION

4.1 Operating Modes

Day Mode — This is the state of the panel when unset. Fire, Personal Attack and Tamper inputs, however, remain active 24 hours a day. (These are referred to as 24 hour zones).
Day mode is identified by the day text displayed on the top line of the LCD on the keypad.

Set Modes — When the panel is set an activation of any Access, Immediate or 24 hour zone will cause an alarm condition. When an alarm is generated the internal and external sounders will operate for the length of time programmed and the tone of the internal sounder will be two notes repeated rapidly. The strobe lamp will also be activated and will continue to operate until the panel is reset.

At the time of setting the control panel, any one of four Set modes can be selected. i.e.

Set A: Whole system set; nobody on premises.
Set B: Upstairs off, Downstairs set.
Set C: Upstairs set, Downstairs off.
Set D: Garage and kitchen off, remainder set.

The above are purely examples. The Engineer has the ability at the programming stage to configure all the circuits to the customer's exact requirements.

4.2 Entry / Exit Mode

Entry When the panel is set and an Entry / Exit zone is triggered the Entry / Exit timer will begin to countdown. During this period an Entry / Exit tone (single repeated bleep) will be produced by the internal sounder and any zones which are programmed as Access zones will be ignored.
If either user code is entered before the end of the count down period the panel will return to ‘day’ mode.
If the timer is allowed to elapse before a user code is entered the panel will go into an alarm state. In this case the system needs to be 'Unset'.

Exit With the panel unset, if a user code is entered the Entry / Exit timer will begin. If all the immediate zones are clear, then the Entry / Exit tone will be heard. Leave the protected area by the predetermined Entry / Exit route. As you trigger Access zones the tone will change temporarily to a repeated low tone. When all the zones are clear, the Entry / Exit tone will continue again until the end of the time-out period. The panel will then be set.

5 ZONES

5.1 Engineer Programmable Zones

Entry / Exit This is a zone which allows limited-time access to the premises in order to Set or Unset the system.

Access This is a zone which, on Setting the panel, allows access to the Entry / Exit zone. However, if the panel is set and an Access zone is triggered before an Entry / Exit zone then an alarm will be generated immediately.

Immediate This is a zone, which will, when triggered, wil create an alarm when the panel is set.

Omit If a zone is programmed as an Omitted zone by the Engineer, then it is ignored by the panel. It allows the user to continue to use the alarm system even if a fault has been discovered on one or more zones.

Personal Attack Triggering of the Personal Attack (P.A.) zone will always cause a full alarm activation regardless of whether or not the panel is set. The P.A. zone may be programmed as silent . A silent P.A. activation will not cause the bell and strobe to operate but the central station will be informed of a P.A. activation.

Tamper The tamper zone may be programmed to give an internal siren or internal / external sounder in day mode. In Set mode both sounders will operate.

Fire Triggering of the fire zone will activate internal and external sounders. A fire alarm is identified by a three note rising sound which is easily distinguished from all other tones.

NOTE: *The Fire Zone is intended as an extra feature to the intruder alarm system and must not be regarded as a total fire protection system.*

24 Hour Zone Will cause an instant alarm when the panel is in Set or Unset mode. (Fire, Personal Attack and Tamper are all 24 hour zones).

Latched Keyswitch
May be programmed to Set the System in one of the Set modes by using a latched mechanism.

Momentary Keyswitch May be programmed to Set the System in one of the Set modes by momentarily pressing a switch.

6 DIAL OUT REPORTING

The Atlas 8 has the capability to send messages of alarm status to a Central Receiving Station. Every time the alarm status changes i.e. Alarm Set / Unset System Fault or Alarm Actuation a message is sent to the CRS informing it of the status change. This is called Dial Out Reporting. Dial Out Reporting can be configured to Group Reporting which allows different alarm status changes to be reported to two different locations, 4 groups are available:

Group 1 - Alarms
Group 2 - Set / Unset
Group 3 - Maintenance
Group 4 - 24 Hour call test

This gives the engineer the ability to configure the system to only report condition changes to relevant locations.
i.e. one location could be informed of all status changes (Groups 1 to 4) while a second location could only be informed of Group 1 conditions.

Confirmed Alarm: This is an extra code which is sent upon two different zones being activated in one set period. It is used to signal that the alarm condition is less likely to be a false alarm, thereby resulting in a higher level of response.

7 FUNCTIONS

Volume Control — This is only accessible when the front cover has been removed and will only affect the volume of any extension speakers. The volume control is overridden when the panel is in an alarm state.

Chime — Chime function applies to 'day' mode only and if selected will cause the panel to generate a three-note sound when an entry/exit zone is triggered. This feature is to inform the occupants of the building that some one has entered.

Event Log — The Atlas 8 control panel incorporates a memory log of the last 30 alarm events and is accessible to both Users and the Engineer. It will record Fire, Intruder, Personal Attack and Tamper alarms and also show if any of the 8 alarm zones have been triggered or omitted. The Engineer can set the clearing of the log for either Engineer-only or Master User and Engineer.

Auto Re-Set — After an alarm the panel will automatically reset itself when the bell timer has expired.
Any zones, which still remain triggered at that time, will be omitted automatically.

Walk test — The walk test function allows each of the Set modes to be checked in order to verify that all the intruder detectors on the alarm system are functioning correctly. When undergoing a walk test the Engineer or Master User can choose which of the Set-modes he wishes to test. Any zones used in that Set-mode will cause a chime at the RKP or extension speaker if they are triggered.

Keypress Timeout — There is a 60 second keypress timeout facility. If a key is not pressed within 60 seconds of the last keypress the keypress buffer is cleared.

Duress — This feature allows the user to either Set or Unset the alarm with the last two digits of the code reversed, this will then send a Duress Code to the Central Receiving Station.
The panel will appear normal when the duress code is active.

Programmable Outputs (PGM) — There are 2 programmable outputs which may be programmed for any of the following 7 options:

Remote LED Enable: This option will allow the PIR LEDs to be enabled during Walk test mode if they have been originally disabled by removing the link pin. This option will only work if the PIR has a remote LED enable facility.

Latch Memory: This feature is useful when more than one detector is connected to a single zone. When the panel is set the LEDs of any triggered detector on this zone will latch causing their LEDs to flash on and off when the panel is disarmed. This feature will only work if the PIR has a Latch Memory facility.

5 Seconds Switch Output: This option will allow the programmable output to act as a momentary switch. This could be used for example to unlock an external electronic door.

Panel Set / Unset Switch Output: By using this option the programmable output will switch as the panel is set and disarmed. This may be used for example to electronically lock a door as the panel is set and unlock it when the panel is unset.

Follow Zone: This option will allow the programmable output to switch on and off as the programmed zone is entered and exited.

Follow Line Fail: This option will allow the programmable output to switch on when a line fail occurs and switch off when the line is active again.

Follow Kiss Off: This option will allow the programmable output to switch on for a few seconds when a communication kiss off has been successfully completed.

System Option 1. The system may be configured for use with the following:

Double Pole Zones:	This is a normally closed zone configuration without end of line resistor.
Double End of Line Zones:	This configuration uses end of line resistors which allow both zone and tamper circuits on the same zone connection.
User Log Reset Enable:	This option allows the user to reset the system log by entering
User Log Reset Disable:	By selecting this option only the engineer has the ability to reset the system log.
Tone Dial:	Select this option for telephone exchanges using tone dial technology.
Pulse Dial:	Select this option for telephone exchanges using pulse dial technology.
Internal & External Sounders On Tamper Activation:	This option will cause both internal and external sounders to activate on a tamper alarm when the panel is in day mode.
Internal Sounder Only On Tamper Activation:	This option will cause only the internal sounder to activate upon a tamper alarm when the panel is in day mode.

System Option 2. The system may be configured for use with the following:

7 Day Test Dial:	Dials the Central Monitoring Station every 7 days.
24 Hour Test Dial:	Dials the Central Monitoring Station every 24 hours.
Dial In:	This option will allow the Atlas 8 to respond to an incoming call in answer machine compatible mode. Answer machine compatible mode: This provides a way of using the Atlas on the same line as an answering machine. The default setting is AMC on. To remotely access the Atlas in AMC mode dial in and wait for a single ring, then hang up and wait for at least 10 seconds, but no more than 40, then dial back in. The Atlas will now answer instantly.
No Dial In:	This option will cause the Atlas 8 to ignore incoming calls. The master user may generate a one hour time window to allow up/downloading by using the function. If this option is selected - this will answer on a single ring.
Wide handshake filters:	Gives a greater chance of the handshake from central station being recognised, use only if the panel does not transmit data after the correct handshake sequence has been transmitted by the central station.
Standard handshake filters:	This setting is the default and will more reliably detect the correct handshake
Silent P.A. Zones:	The P.A. zone activation will not generate internal or external sounders if this option is selected. Dial out will occur however if the panel has been programmed to do so.
Audible P.A. Zones:	The Personal Attack zone activation will cause both internal and external sounders to operate. Dial out will also occur if the panel has been programmed to do so.

System Option 3. The system may be configured for use with the following:

Engineer Code Lock N.V.M Reset:	This option allows the control panel programmable settings to be reverted back to factory default when in Engineer mode only.
Engineer Power Up N.V.M Reset:	This allows the control panel programmable settings to be reverted back to factory default when in User Mode.

Display Open Zones: When enabled and the panel is unset, any entry / exit, access or immediate zone, when activated will be displayed on the keypad.

Alarm In Line Fail: When the panel is set, if a line fail occurs the internal and external alarms will activate.

Disable Telephone Line Monitoring: This option when selected, will suppress system fault 6.

Programmable Re-sets:

The number of control panel rearms maybe programmed as follows:
a) from 1 to 9 to give up to 9 re-arms
or b) continuous re-Setting after an alarm activation.

Central Monitoring Station Telephone Number:

This is the telephone number of the central monitoring Station which, if required, the Atlas 8 will dial to during an alarm activation.

Central Monitoring Station Second Telephone Number:

This is an alternative number which will be used by the Atlas 8 if the first telephone line is busy. If after four attempts connection with the first number fails then this number will be dialed.

Customer Account Code:

This is a three or four digit number given to the installation engineer by the central monitoring station. The number identifies the customer site when the Atlas 8 dials out during an alarm activation. The upper HEX digits (B to F) can be used for reporting codes.

Downloading Access Code:

This is a four digit access code required by the alarm company in order to access the Atlas 8 during an uploading or downloading operation.

Reporting Codes:

These are unique two digit or single digit numbers used by the central monitoring station to identify the zone causing an alarm activation and to give information on the status of the Atlas 8. These codes are issued by the central monitoring station and are dialed out by the Atlas 8 when programmed to do so. The upper HEX digits (B to F) can be used for reporting codes.

Restoral Reporting Codes:

After an alarm activation one of two restoral reporting codes maybe logged.

User Code Restoral:

This code will be logged if the master user code or limited user code is used to Unset the panel after an alarm activation.

Bell Timeout Restoral:

If after the external sounder has timed out the panel is automatically re-set, the bell timeout restoral code will be logged.

Battery Restoral: This code will be reported when a battery fault is restored after a failure.

Mains Restoral: This code will be transmitted upon restoral of a.c. mains after a failure.

Digicom Codes: The Atlas 8 may be programmed to output its communicator codes in one of four different formats. SIA DTMF format is the default. Check with your central monitoring station for the required format.

Keyswitch Set Configuration:

Any of the Atlas 8 alarm zones may be programmed as a keyswitch zone. The keyswitch may be configured to Set the panel as Set A, B, C or D. (see programming section for details).

System Option 4

Bell Squawk-

Upon expiry of the exit time, if the panel sets OK the bell will emit a short duration of sound. It will also emit a short duration of sound upon disarming.
Default value - OFF.

Bell Time Minutes/Seconds-

This option allows for very short bell durations.
Default value - Minutes.

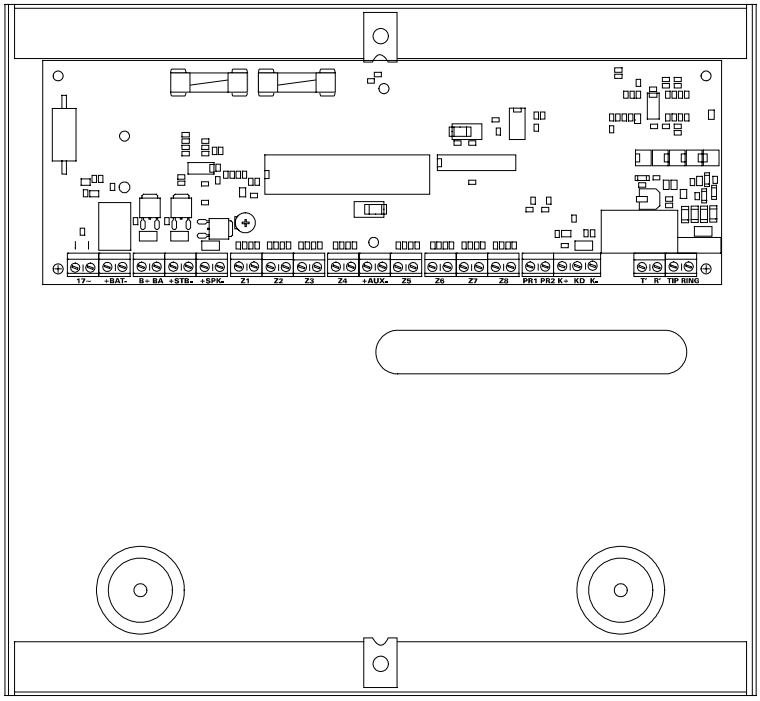
AC Fail Delay

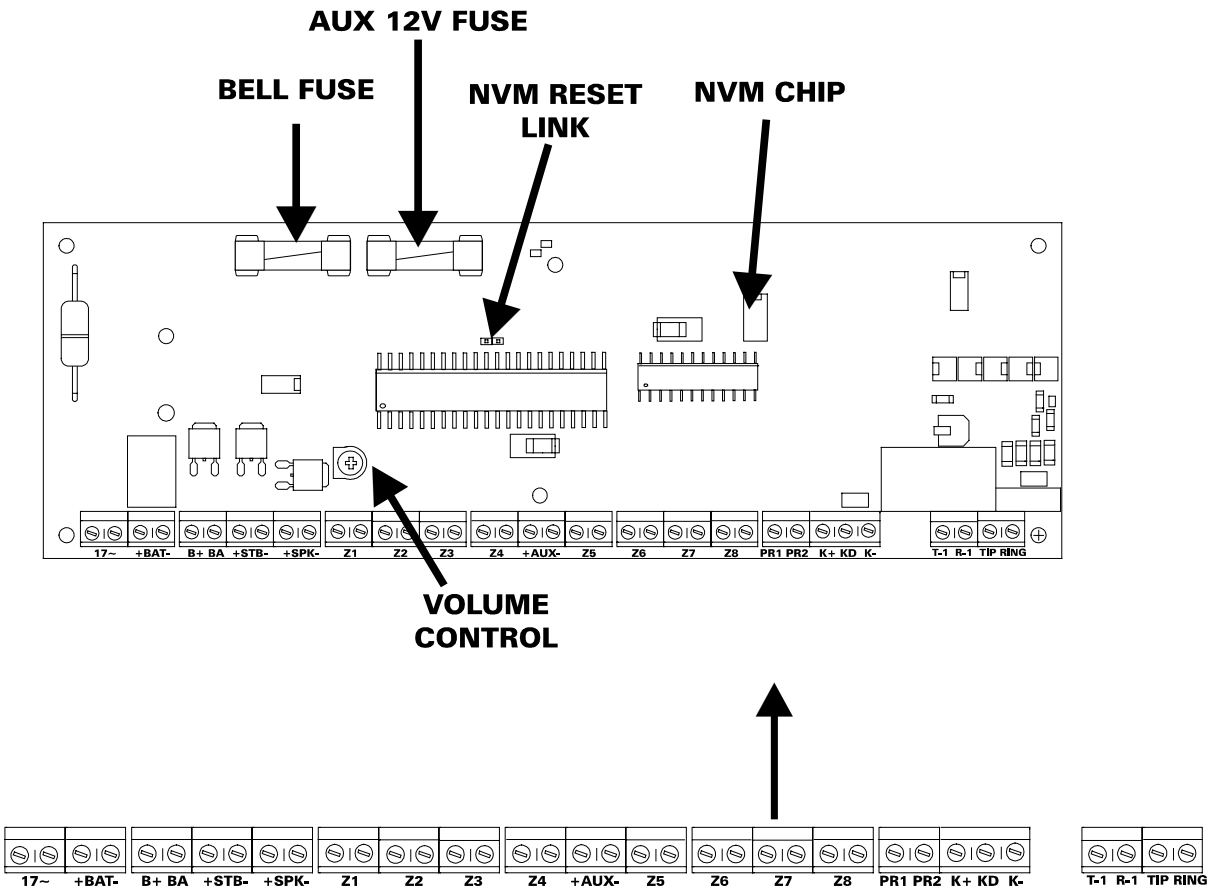
This option delays the display and transmission of AC faults. Generally used in areas where there is an unstable mains supply.
Default value - 0 Minutes

8 INSTALLATION AND WIRING

Before beginning any installation work read through this section carefully. Plan out the various areas and degrees of protection required from each zone. It is important to decide which type each zone should be if selective sets are to be used. Work out the cable routes avoiding mains cabling and consider the chosen position for the control panel.

8.1 Plan View With Cover Removed

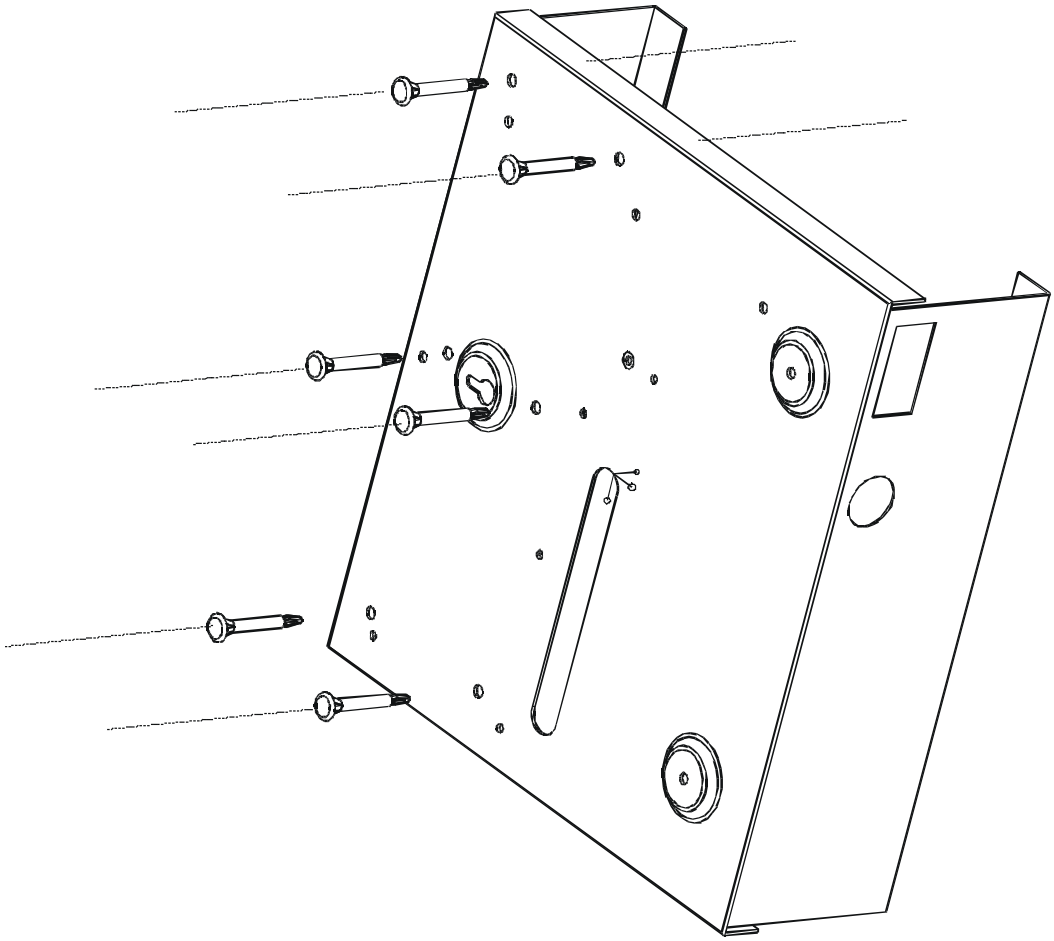



AUX 12V FUSE
BELL FUSE
NVM RESET LINK
NVM CHIP
VOLUME CONTROL
17~ +BAT- B+ BA +STB- +SPK- Z1 Z2 Z3 Z4 +AUX- Z5 Z6 Z7 Z8 PR1 PR2 K+ KD K- T-1 R-1 TIP RING

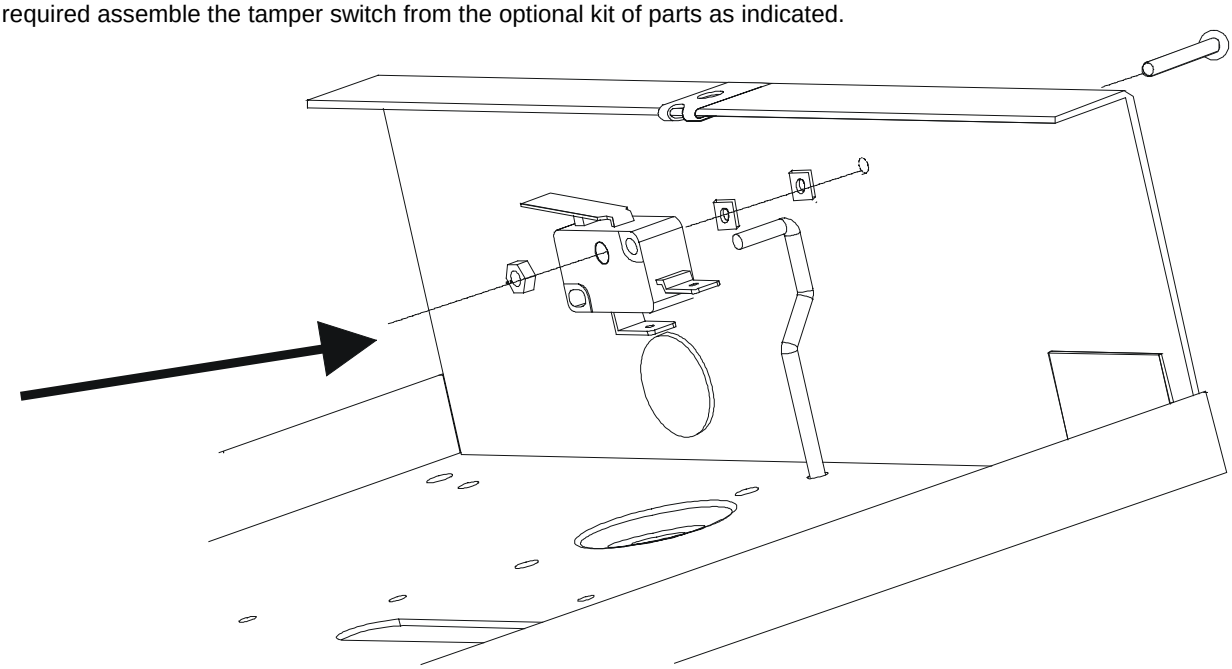
9 PANEL ASSEMBLY

9.1 Steel Panel Assembly

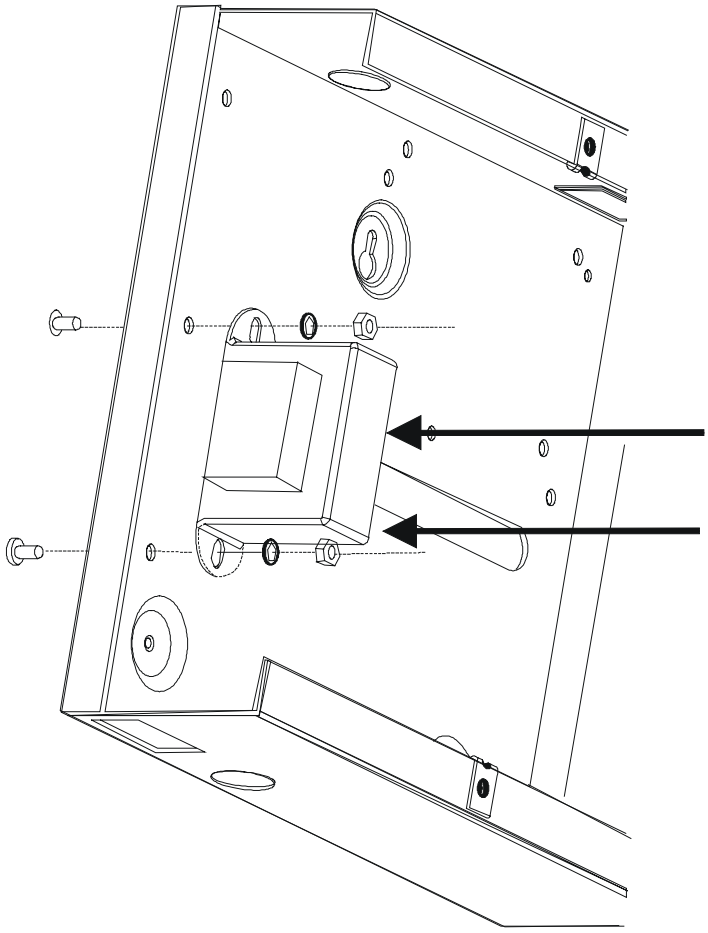
Take off the front cover and remove the cardboard packaging containing the control panel and PCB. Push in the PCB support posts from the rear of the panel as shown.



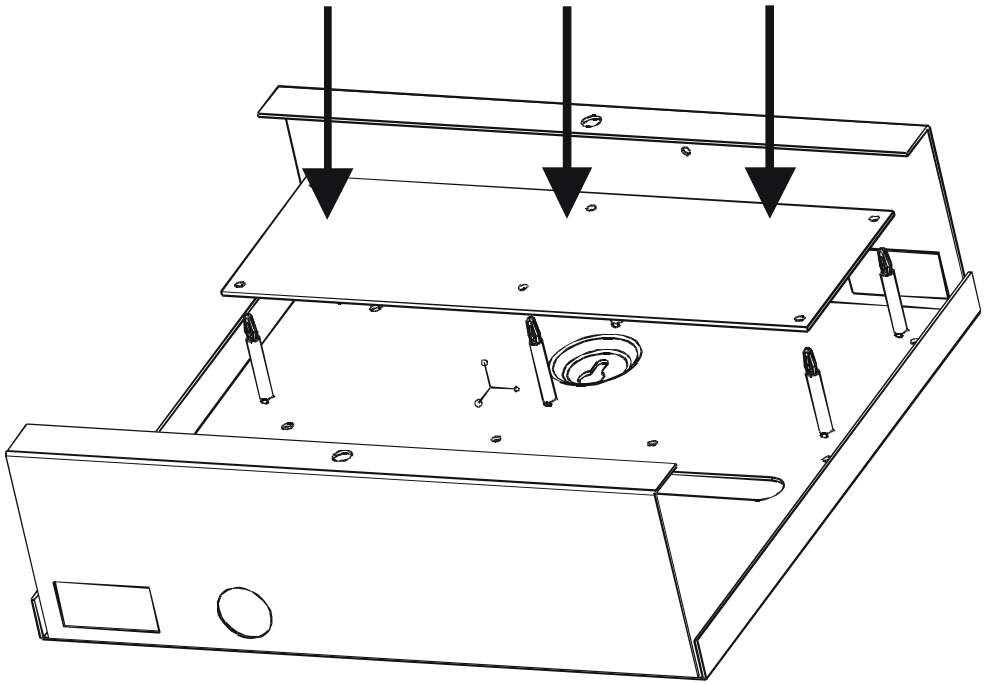
If required assemble the tamper switch from the optional kit of parts as indicated.



If necessary place the transformer and fasten into position using the screws supplied with the transformer kit.



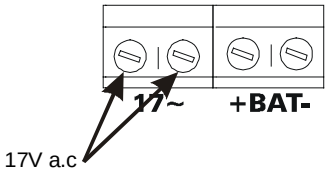
Hang the control panel base onto the wall with the central mounting hole using one of the screws and plugs from the screw pack. If possible use a spirit level or some other means to position the control panel squarely then drill two more holes into the wall to locate the other two screws and plugs.
Finally place the PCB onto its supports.



10 POWER CONNECTIONS

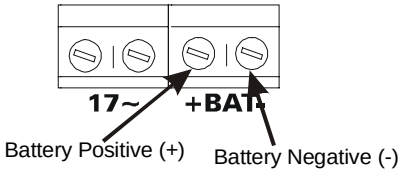
10.1 Connections

The Atlas 8 requires a supply of 17V a.c. from the power supply unit or transformer, with a current capacity of 1 amp. Connect the 17V current to the terminals marked 17~ on the PCB.

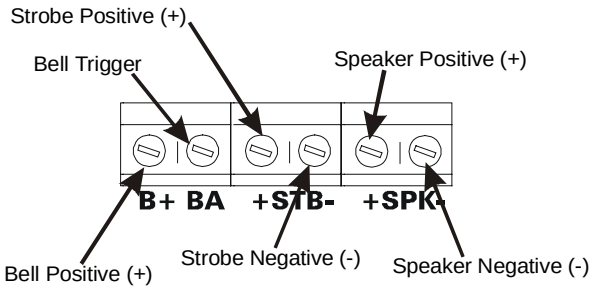


10.2 Battery Connection

In order for the Atlas 8 to operate if the mains power is cut a battery back-up is required. Refer to 10.5 for battery specifications. Connect the battery to the terminals marked +BAT- on the PCB.



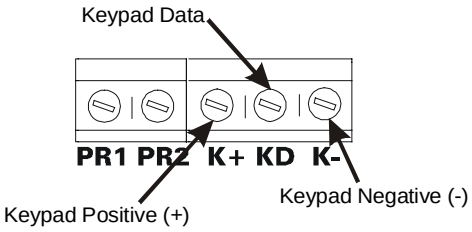
10.3 Bell, Strobe and Extension Speaker Connections



NOTE: *The bell Negative (-) should be returned to the BAT (-) connection on the PCB.*

The bell tamper must be connected to a tamper zone or connected as end of line zone.

10.4 Remote Keypad 'RKP' Connections



If more than one keypad is to be used, additional keypads can be wired in either daisy chain or star configuration.
The RKP tamper must be connected to a tamper zone or connected as end of line zone.

10.5 Battery Capacity

It is recommended that the rechargeable battery used with the Atlas 8 control panel should be capable of powering the alarm system for a minimum of 8 hours, and that this time period should include 20 minutes of bell/strobe operation. The minimum battery capacity should be calculated from the current consumption of the individual system components.

A typical example based on the following individual parts is shown below:

Non alarm current for control panel (7hrs 40min)	: 130mA (0.130 A)
Steady state current for detectors	: 120mA (0.120 A)
(e.g. 8 x 15mA for 8 hours - Pyronix PIRs)	
Typical standby current for external sounder	: 50mA (0.050 A)
(e.g. Self Actuating Bell for 8 hours)	
Typical on state current for external sounder (20 mins)	: 350mA (0.35 A)
Alarm state current for control panel (20 mins)	: 130mA (0.13 A)
Typical current for external strobe (8 hours)	: 150mA (0.15 A)

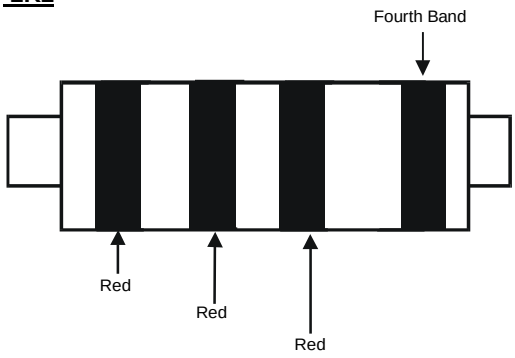
<u>Alarm condition for 20 mins (0.333 hrs)</u>	
Alarm state current for control panel	: 0.130
8 detectors @15mA	: 0.120
External sounder	: 0.350
External strobe	: 0.150
Standby current for external sounder	: 0.050
Single remote keypad	: 0.015
Required capacity for alarm condition	= 0.815 x 0.333 = 0.271 Ahrs
<u>Capacity required for standby 7hrs 40 mins (7.67 hrs)</u>	
Non alarm current for control panel	: 0.130
8 detectors @ 15mA	: 0.120
External strobe	: 0.150
Standby for external sounder	: 0.050
Single Remote keypad	: 0.015
Required capacity for standby condition	= 0.465 x 7.67 = 3.57 Ahrs
Total minimum required battery capacity	= 0.271 + 3.57 = 3.84 Ahrs

For this example it is recommended that you use a battery of not less than 6 AH.

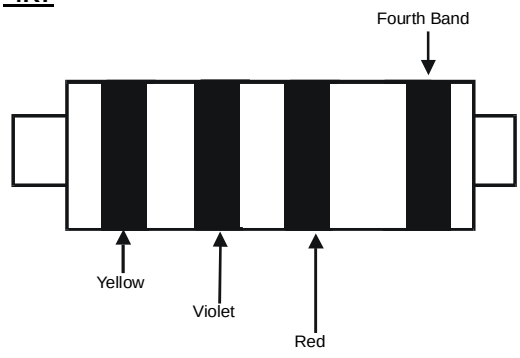
10.6 End of line resistors

When a Sensor, and tamper are wired into the same zone this is called an End of Line Zone (EOL). The Atlas 8 panel uses resistors on all of its end of line zones. Two resistor values are used, these are 2K2 and 4K7.
To identify the two resistors, coloured bands on the body are used. These are as follows:

2K2



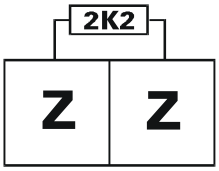
4K7



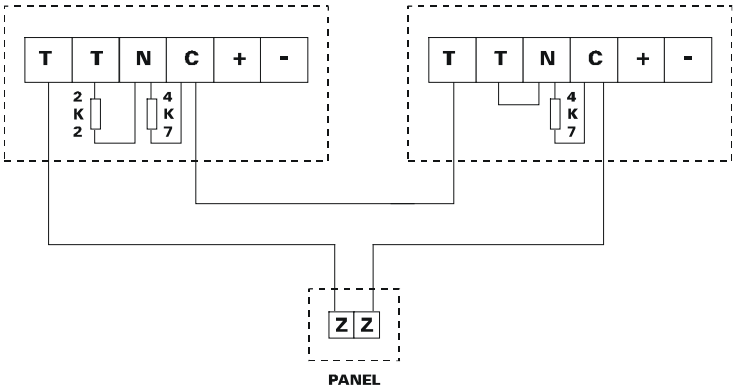
Any unused zones should NOT be left open circuit. These should have a 2K2 resistor inserted, Refer to diagram 10.6.1, page 17.

NOTE: *when the panel and sensors are wired using end of line resistors, to enable the zone to detect alarm and tamper, the system must be configured in System Option 1. Refer to Page 23.*

10.6.1 Atlas 8 End Of Line Resistor Wiring Diagram.

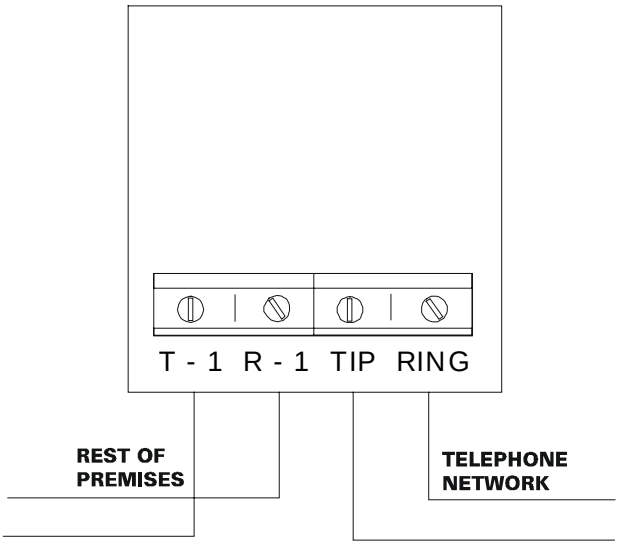


10.6.2 Atlas 8 Double Pole Zone Wiring Diagram.
Wiring two or more sensors with end of line resistors to a single zone.
NOTE: *only one 2K2 resistor should be used per zone.* The 2K2 resistor should be installed into the last detector in series to protect all the zone tamper wiring.



Up to ten sensors or door contacts may be wired on each zone.

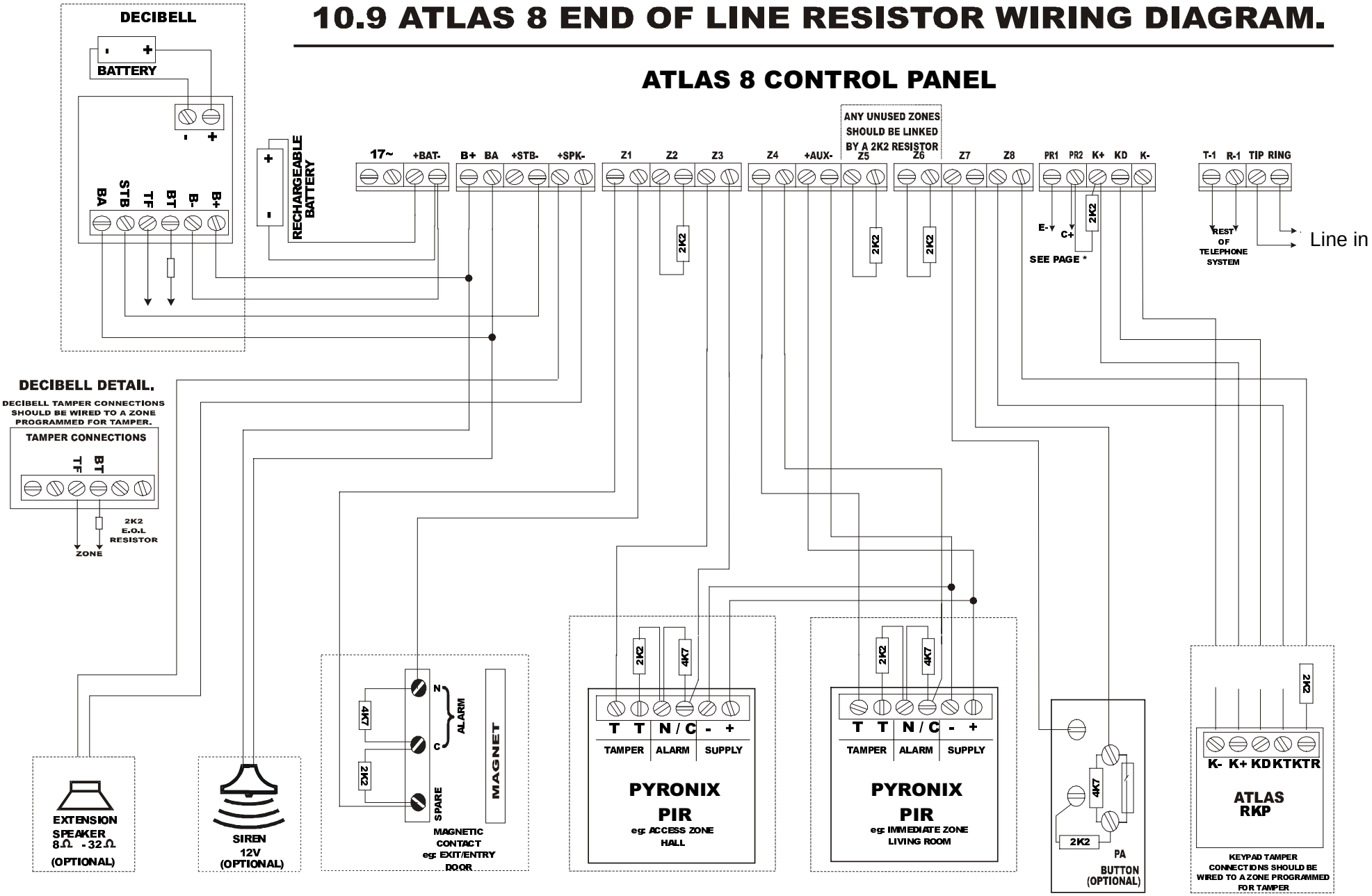
10.7 Telephone Connections



10.8 Powering Up Your Panel / RKP

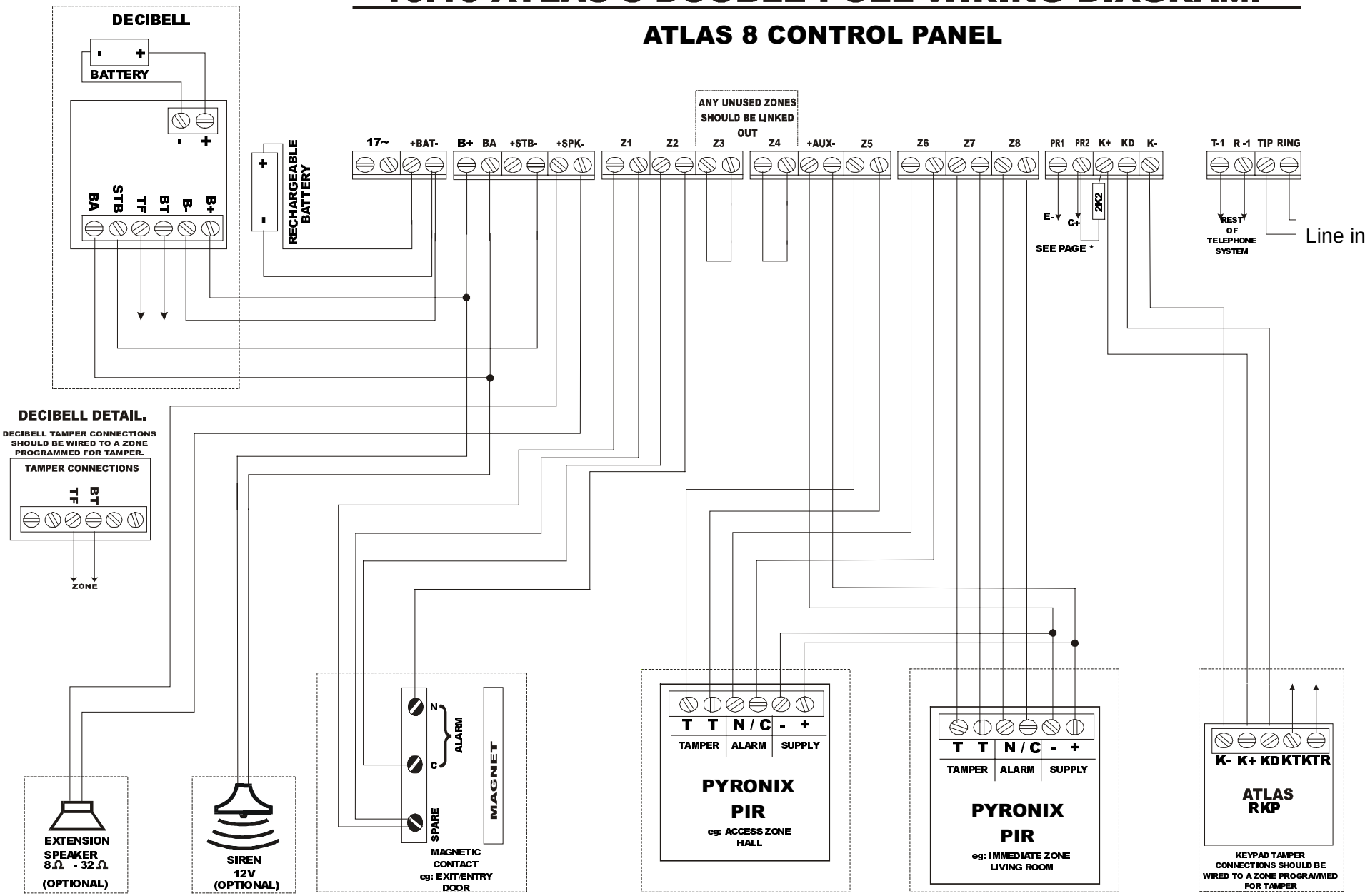
a. Connect the battery leads to the control panel. (+BAT-). The red lead should be connected to "**+**" terminal and the black lead to "**-**" terminal.
b. Push on the spade connectors to connect the battery
c. Switch on the AC supply. The supply LED will be on. Now proceed to Section 11 "Programming".

10.9 ATLAS 8 END OF LINE RESISTOR WIRING DIAGRAM.


ATLAS 8 CONTROL PANEL
DECIBELL
BATTERY
BA STB TF BT B- B+
RECHARGEABLE BATTERY
ANY UNUSED ZONES SHOULD BE LINKED BY A 2K2 RESISTOR
17~ +BAT- B+ BA +STB- +SPK- Z1 Z2 Z3 Z4 +AUX- Z5 Z6 Z7 Z8 PR1 PR2 K+ KD K-
T-1 R-1 TIP RING
E- C+
SEE PAGE *
REST OF TELEPHONE SYSTEM
Line in
DECIBELL DETAIL.
DECIBELL TAMPER CONNECTIONS SHOULD BE WIRED TO A ZONE PROGRAMMED FOR TAMPER.
TAMPER CONNECTIONS
TF BT
2K2 E.O.L RESISTOR
ZONE
EXTENSION SPEAKER 8Ω - 32Ω (OPTIONAL)
SIREN 12V (OPTIONAL)
N C SPARE
ALARM
MAGNETIC CONTACT eg: EXIT/ENTRY DOOR
MAGNET
T T N/C - +
TAMPER ALARM SUPPLY
PYRONIX PIR
eg: ACCESS ZONE HALL
PYRONIX PIR
eg: IMMEDIATE ZONE LIVING ROOM
PA BUTTON (OPTIONAL)
K- K+ KD KT KTR
ATLAS RKP
KEYPAD TAMPER CONNECTIONS SHOULD BE WIRED TO A ZONE PROGRAMMED FOR TAMPER

10.10 ATLAS 8 DOUBLE POLE WIRING DIAGRAM.

ATLAS 8 CONTROL PANEL


DECIBELL
BATTERY
BA STB TF BT B- B+
RECHARGEABLE BATTERY
ANY UNUSED ZONES SHOULD BE LINKED OUT
17~ +BAT- B+ BA +STB- +SPK- Z1 Z2 Z3 Z4 +AUX- Z5 Z6 Z7 Z8 PR1 PR2 K+ KD K-
T-1 R -1 TIP RING
E- C+ 2K2
SEE PAGE *
REST OF TELEPHONE SYSTEM
Line in
DECIBELL DETAIL.
DECIBELL TAMPER CONNECTIONS SHOULD BE WIRED TO A ZONE PROGRAMMED FOR TAMPER.
TAMPER CONNECTIONS
TF BT
ZONE
EXTENSION SPEAKER 8Ω - 32Ω (OPTIONAL)
SIREN 12V (OPTIONAL)
N C SPARE ALARM MAGNET
MAGNETIC CONTACT eg: EXIT/ENTRY DOOR
T T N / C - +
TAMPER ALARM SUPPLY
PYRONIX PIR
eg: ACCESS ZONE HALL
T T N / C - +
TAMPER ALARM SUPPLY
PYRONIX PIR
eg: IMMEDIATE ZONE LIVING ROOM
K- K+ KD KT KTR
ATLAS RKP
KEYPAD TAMPER CONNECTIONS SHOULD BE WIRED TO A ZONE PROGRAMMED FOR TAMPER

11 PROGRAMMING

11.1 Factory Defaults

The panel is preprogrammed to the factory settings shown below.

Master User code	: 1234 (0000-9999)
Limited User code	: 5678 (0000-9999)
Engineer code	: 9999 (0000-9999)
Bell timer	: 20 minutes (programmable 2 to 20 mins)
Entry	: 30 seconds (programmable 2 to 255 secs)
Exit	: 30 seconds (programmable 2 to 255 secs)
Event log	: Engineer reset of log
Downloading access code	: 1234
Group reporting	: Group1=1, Group2=1, Group3=1
Dial in	: Enabled
Zones	: End Of Line Resistor
Programmable Outputs	: Off
System Option 1	: End Of Line Zone
	User Log Reset Disabled
	Tone Dial
	Internal Sounder Only On Tamper Activation
System Option 2	: 24 Hour Test Dial
	Dial In
	Spare
	Audible PA
System Option 3	: Power Down NVM Reset
	Spare
	Spare
	Spare
Re-sets	: Continuous

The zone types are factory set as follows.

	Zone Number							
	1	2	3	4	5	6	7	8
Set A	ENTRY/EXIT	ACCESS	IMMEDIATE	IMMEDIATE	IMMEDIATE	IMMEDIATE	IMMEDIATE	IMMEDIATE
Set B	ENTRY/EXIT	ACCESS	IMMEDIATE	IMMEDIATE	IMMEDIATE	IMMEDIATE	IMMEDIATE	IMMEDIATE
Set C	ENTRY/EXIT	ACCESS	IMMEDIATE	IMMEDIATE	IMMEDIATE	IMMEDIATE	IMMEDIATE	IMMEDIATE
Set D	ENTRY/EXIT	ACCESS	IMMEDIATE	IMMEDIATE	IMMEDIATE	IMMEDIATE	IMMEDIATE	IMMEDIATE

11.2 Entering Engineer Mode

To enter the Engineer Mode.

Enter ✓ 0 9999 (Engineer Code, factory default to 9999)

Whilst in Engineer mode, you are able to remove any covers without creating a tamper alarm.

11.3 Setting Volume Control (Extension speaker only)

This volume is controlled via the adjustable volume pot on the main processor board.

1. Remove lid.
2. Set volume pot to desired volume
3. Depress a number digit on the keypad to check desired volume has been reached.
4. Replace cover.

In an alarm condition the volume control is overridden and the speakers will operate at full volume.

NOTE: *Each RKP has its own volume control pot.*

11.4 Resetting the Non Volatile Memory (NVM) to Factory Settings

The panel may be programmed as power up NVM reset or engineer only NVM reset.

Power Up NVM Reset

If the panel is configured by the engineer to allow the reset of the NVM back to factory settings by powering up the system with the NVM reset pins shorted together.

Locate the NVM reset pins on the PCB, using the link pin provided connect the two pins together. Power down the system (mains and battery). Restore power and remove the link. The system is now back to factory default settings.

Engineer Only NVM Reset

If the panel is configured for Engineer Only NVM Reset, the panel can only be reset to factory defaults if the Engineers code is known.

Enter the engineer mode. Use the link supplied to connect the NVM reset pins together and enter ✓39 on the key pad, remove the link. The system is now back to factory default settings.

11.5 Setting the Panel when Mains Fails

Under normal operation the panel will indicate a fault condition if the AC supply is disconnected. It will still be possible to Set and Unset the control panel during a mains fail and no further action is required.

Full functionality of the control panel is available during mains fail.

11.6 Programming Set Modes.

Any zone may be programmed to be any one of the following:

ENTRY / EXIT	ACCESS	IMMEDIATE	OMIT	MOMENTARY KEY	LATCHED KEY
TAMPER	PERSONAL ATTACK		24 HOUR FIRE		

The attribute for each zone is changed by pressing ▲ or ▼ until the required attribute appears in the display. When the display shows the required attribute press the ► key to store the zone attribute. If the required attribute is already shown press the ► key to go to the next zone.

NOTE: *On pressing ► after selecting the attribute for zone 8, the programme will be stored automatically.*

To programme Set A enter ✓10 , to programme Set B enter ✓11

to programme Set C enter ✓12 and to programme Set D enter ✓13.

Should you wish to view any zone status within a Set mode use the same procedure, but do not scroll the keys.

11.7 Setting the Alarm Bell Time

To adjust the alarm bell cut off time. Enter ✓14

followed by the required time in minutes (2 to 20 minutes) followed by ✓ to accept.

Incorrect entry gives an audible error tone and correct entry gives three bleeps.

The alarm bell cut off time for the Atlas 8 is factory set to 20 minutes.

11.8 Setting Entry Time

To set the required Entry time. Enter ✓15
followed by the time required in seconds (2 to 255 seconds) followed by ✓ to accept.
Incorrect entry gives an audible error tone and correct entry gives three bleeps.
The Entry time is factory set to 30 seconds.

11.9 Setting Exit Time

To set the required Exit time Enter ✓16
followed by the time required in seconds (2 to 255 seconds) followed by ✓ to accept.
Incorrect entry gives an audible error tone and correct entry gives three bleeps.
The Exit time is factory set to 30 seconds.

11.10 Changing the Engineer Code

Enter ✓17 then XXXX the old Engineer Code - gives an audible acceptance tone
(Factory Set at 9999)
then XXXX the new Engineer Code - gives an audible acceptance tone
then XXXX the new Engineer Code again- gives an audible acceptance tone
If an incorrect key is entered an error tone will be given and the function ended.

11.11 Programmable Options

11.11.1 Programmable Output 1

Enter ✓18 followed by 0 - 7 for following options:

0	OFF (programmable output 1 not used).
1	PIR remote LED enable.
2	PIR latch memory.
3	Output switch 5 secs.
4	Output switch reflecting Setting and disarming of panel.
5	Follow zone. Refer to 11.1121 for Zone allocation.
6	Follow line fail.
7	Follow kiss off.

11.11.2 Programmable Output 2

Enter ✓19 followed by 0 - 7 for following options:

0	OFF (programmable output 2 not used).
1	PIR remote LED enable.
2	PIR latch memory.
3	Output switch 5 secs.
4	Output switch reflecting Setting and disarming of panel.
5	Follow zone. Refer to 11.11.22 for Zone allocation.
6	Follow line fail.
7	Follow kiss off.

11.11.3 System Option 1

Enter ✓ 2 0 followed by 1 - 4. The RKP display will toggle ✔ and **X** as the numbered keys are pressed, indicating the selection made.

	Key Press			
Display	**1**	**2**	**3**	**4**
✓	Double Pole Zone	User Log Reset Enabled	Pulse Dial	External and Internal Sounders on Tamper Activation
X	End Of Line Zones	User Log reset Disabled	Tone Dial	Internal Sounder Only On Tamper

Press ✓ to accept.

11.11.4 System Option 2

Enter ✓ 2 1 followed by 1 - 4. The RKP display will toggle ✔ and X as the numbered keys are pressed, indicating the selection made.

	Key Press			
Display	**1**	**2**	**3**	**4**
✓	7 Day test dial	Dial in	Wide handshake filters	Silent PA zones
X	24 Hour test dial	No dial in	Standard handshake filters	Audible PA zones

Press ✓ to accept.

11.11.5 System Option 3

Enter ✓ 2 2 followed by 1 - 4. The RKP display will toggle ✔ and X as the numbered keys are pressed, indicating the selection made.

	Key Press			
Display	**1**	**2**	**3**	**4**
✓	Engineer code NVM Reset only	Display open zones in day mode	Alarm on line fail	Telephone line monitoring disabled
X	Power down NVM Reset	No display	No alarm on line fail	Telephone line monitoring enabled

Press ✓ to accept.

11.11.6 System Option 4

Enter ✓ 2 3 followed by 1 - 4. The RKP display will toggle ✔ and X as the numbered keys are pressed, indicating the selection made.

	Key Press			
Display	**1**	**2**	**3**	**4**
✓	Bell Squawk	Bell time seconds	No AC fail warning	Spare
X	No Bell squawk	Bell time minuets	AC fail warning	Spare

Press ✓ to accept.

11.11.7 Programmable Re-sets

Enter ✓ 2 4 *"ENTER SEQUENCE"* enter the number of re-sets required 0 - 9 (0 = continuous re-setting)

11.12 Central Monitoring Station Telephone Number

Enter ✓25 *"ENTER SEQUENCE"* enter the telephone number. (Up to 16 digits)

By pressing the a ▲ "**,**" is displayed and a 2 second pause during the number dial will be inserted.

Press ✓ to store entry.
A number consisting of 16 digits will be stored automatically when the last digit is entered.

11.13 Central Monitoring Station Second Telephone Number

Enter ✓26 *"ENTER SEQUENCE"* enter the telephone number. (Up to 16 digits)

By pressing the ▲ a "**,**" is displayed and a 2 second pause during the number dial will be inserted.

Press ✓ to store entry.
A number consisting of 16 digits will be stored automatically when the last digit is entered.

11.14 Customer Account Code (Issued by Central Monitoring Station)

Enter ✓27 *"ENTER SEQUENCE"* followed by the 4 digit code.

e.g. 4 digit 1234

11.15 Downloading Access Code

Enter ✓28 *"ENTER SEQUENCE"* followed by the 4 digit code.

11.16 Reporting Codes

11.16.1 Zone Alarm Reporting Codes

Enter ✓29 *"ENTER SEQUENCE"* followed by 2 digits for each alarm zone. To disable an event insert blanks by pressing the ▼ key in place of the two digits.

Examples	Alarm zone 1	01
	Alarm zone 2	02
	Alarm zone 3	03
	Alarm zone 4	04
	Alarm zone 5	05
	Alarm zone 6	06
	Alarm zone 7	07
	Alarm zone 8	08

For example to program alarm zone reporting codes 68 69 and 71 to zones 2, 4 and 7 respectively the following would be entered:

✓29 ▼▼ 68 ▼▼ 69 ▼▼ ▼▼ 71 ▼▼

To use HEX codes, use the ▲ key to select the character required and the ► key to accept.

Reporting codes are automatically stored after the 16th key press.

11.16.2 Zone Tamper Reporting Codes

Enter ✓ 3 0 *"ENTER SEQUENCE"* followed by 2 digits for each tamper zone. To disable an event insert blanks by pressing the ▼ key in place of the two digits.

Examples	Tamper zone 1	0 1
	Tamper zone 2	0 2
	Tamper zone 3	0 3
	Tamper zone 4	0 4
	Tamper zone 5	0 5
	Tamper zone 6	0 6
	Tamper zone 7	0 7
	Tamper zone 8	0 8

To use HEX codes, use the ▲ key to select the character required and the ► key to accept.

Reporting codes are automatically stored after the 16th key press.

11.16.3 System Set / Unset Reporting Codes

Enter ✓ 3 1 *"ENTER SEQUENCE"* Enter 2 digits for each of the system set / unset reporting codes. To disable an event insert blanks by pressing the ▼ key in place of the two digits.

Examples	Set A	0 1
	Set B	0 2
	Set C	0 3
	Set D	0 4
	Duress Set	0 5
	Duress Unset	0 6
	Confirmed alarm code	0 7

To use HEX codes, use the ▲ key to select the character required and the ► key to accept.

Reporting codes are automatically stored after the 14th key press.

11.16.4 User Set reporting codes

Enter ✓ 3 2 *"ENTER SEQUENCE"* Enter 2 digits for each of the user set reporting codes. To disable an event insert blanks by pressing the ▼ key in place of the two digits.

Examples	Set User 1	0 1
	Set User 2	0 2
	Set User 3	0 3
	Set User 4	0 4
	Set User 5	0 5
	Set User 6	0 6
	Set User 7/Keyswitch	0 7

To use HEX codes, use the ▲ key to select the character required and the ► key to accept.
Reporting codes are automatically stored after the 14th key press.

11.16.5 User Unset Reporting Codes

Enter ✓33 *"ENTER SEQUENCE"* Enter 2 digits for each of the user unset reporting codes. To disable an event insert blanks by pressing the ▼ key in place of the two digits.

Examples	Unset User 1	01
	Unset User 2	02
	Unset User 3	03
	Unset User 4	04
	Unset User 5	05
	Unset User 6	06
	Unset User 7/Keyswitch	07

To use HEX codes, use the ▲ key to select the character required and the ► key to accept.
Reporting codes are automatically stored after the 14th key press.

11.16.6 Maintenance and Priority Reporting Codes

Enter ✓34 *"ENTER SEQUENCE"* Enter 2 digits for the eight maintenance/priority codes. To disable an event insert blanks by pressing the ▼ key in place of the two digits.

Examples	P.A. alarm entered at RKP	01
	Fire alarm entered at RKP	02
	Engineer mode entered	03
	Bell fuse failure	04
	Auxiliary fuse failure	05
	Battery trouble	06
	AC fail	07
	Keypress Tamper	08

To use HEX codes, use the ▲ key to select the character required and the ► key to accept.

Reporting codes are automatically stored after the 16th key press.

11.16.7 Restoral Reporting Codes

Enter ✓35 *"ENTER SEQUENCE"* Enter 2 digits for the five restoral reporting codes. To disable an event insert blanks by pressing the ▼ key in place of the two digits.

Examples	User Code Restoral	01
	Bell Timeout Restoral	02
	Battery restoral	03
	A.C. Restoral	04
	Test Transmission	05

To use HEX codes, use the ▲ key to select the character required and the ► key to accept.

Reporting codes are automatically stored after the 10th key press.

11.17 Digicom Codes

Enter ✓36 *"ENTER SEQUENCE"* Enter 1 digit to select the required reporting format.

Examples
0 SIA DTMF
1 SIA pulse format P1 - 1400 Hz handshake 10pps
2 SIA pulse format P2- 2300 Hz handshake 20pps
3 SIA pulse format P3 - 1400 Hz handshake 20pps
4 Reserved
5 Reserved
6 Reserved

11.18 Keyswitch Set Configuration

Enter ✓37 Enter digit 0 - 6.

Examples
0 Set A
1 Set B
2 Set C
3 Set D
4 Reserved
5 Reserved
6 Reserved

NOTE: *If a Keyswitch is required to Unset the system, then all the four Set modes must reflect this in the same zone.*

11.19 Group Reporting Telephone Allocation

This selection requires all four Groups to be programmed.

Enter ✓38 - Group 1 'Alarm Codes'. Now select where you require the Alarm Codes to be reported to.

0 No reporting for group
1 Report to telephone number 1, backup to number 2
2 Report to telephone number 2 only
3 Report to both telephone numbers always

After a number has been selected, the next group will be automatically selected.

Group 2 'User Set/Unset Codes'. Select from the list above where you require User Set/Unset codes to be reported to.
Group 3 'Maintenance Codes'. Select from the list above where you require Maintenance codes to be reported to.
Group 4 '24hr. Test call'. Select from the list above where you require 24hr.Test Call codes to be reported to.

The dual tone sound indicates programming of Group Reporting is now complete.

11.20 Engineer NVM Reset

Enter ✓39 This function, if enabled in system options 3, resets the panel to factory defaults. The NVM link must be shorted before this will work.

11.21 Follow Select

Enter ✓40 This function is used in conjunction with Programmable Output 1 and 2, option 5 'Follow Zone'. Enter the zone to be followed.

Enter 1 - 8 for zones 1 to 8 or

0 if no zone is to be followed.

11.22 Exiting Engineer Mode

Enter ✓00 XXXX (Where XXXX is the 4 digit Engineer Code).

NOTE: *Refer to the User Manual for detailed instructions on how to use the Atlas 8 after programming.*

12 SYSTEM FAULTS

There are 6 fault conditions automatically detected by the Atlas 8. The user is informed of a fault via a flashing **!**. This will illuminate and an error tone will be emitted every 5 seconds when the panel is in day mode, Press a function key to stop the error tone. The fault **!** will remain on until the fault has been corrected.

To determine the fault go into the log by entering ✓2 the fault will be displayed.

1 Bell Fuse Failure
2 Auxiliary Fuse Failure
3 Battery Missing
4 Low Battery Voltage
5 Mains Failure
6 Telephone Line Failure
7 Spare
8 Event Report Failure

13 TECHNICAL SPECIFICATION

13.1 Power supply

Power input	: 17V a.c.
Low voltage output	: 13.2 Vdc fused, 1.25 Amp maximum Including Control Panel. 1Amp maximum available for external devices.
Low voltage output fuses	: 1 Amp quick blow.
Battery charge voltage	: 13.7 V d.c.
Rechargeable battery capacity	: 12V sealed lead acid, 2.8 to 6 AH.

13.2 Control PCB

Current consumption	
(day mode)	: 130mA.
(set mode)	: 130mA.
(alarm)	: 130mA.
Auxiliary DC output supply	: Regulated 13.2V d.c. for use with PIR, microwave and shock sensors.
Extension Speaker load	: 16 to 32 Ohms.
Bell	: 500mA.
Strobe	: 500mA.
PR1 / PR2	: 250mA.
Alarm bell time	: 2 to 20 minutes (software programmable).
Zone type	: Normally closed loops which activate when opened or short circuit.
Zone loop current	: 0.76 to 1.03mA.
Zone activation resistance	: 6.9K Ohms (minimum).
Zone loop activation timer	: 0.35 seconds.
Exit timer	: 2 to 255 seconds.
Entry timer	: 2 to 255 seconds.

13.3 Mechanical

Dimensions	: 228 x 243 x 75 mm.
Case material	: 1.2mm (0.8mm export) thick Mild steel with screw fixing front cover.
Colour	: White (grey export).
Weight excluding battery	: 2.6Kg.

13.4 Environmental

Operating temperature	: 0 to +40^{0}C (+32 to +104^0 F).
Storage temperature	: -20 to +60 ^{0}C (-4 to +172^0 F).

13.5 Cleaning

DO NOT use strong detergents to clean this control panel. To remove any dirt or grime, wipe with a clean damp cloth ONLY

14 ENGINEER QUICK REFERENCE PROGRAMMING SECTION

✓10 Set A zone attributes.
✓11 Set B zone attributes.
✓12 Set C zone attributes.
✓13 Set D zone attributes.
✓14 Bell time
✓15 Entry time
✓16 Exit time
✓17 Engineer code change
✓18 Programmable outputs 1
✓19 Programmable outputs 2
✓20 System option 1
✓21 System option 2
✓22 System option 3
✓23 Spare
✓24 Re-Sets
✓25 First telephone number
✓26 Second telephone number
✓27 Customer account code
✓28 Downloading access code
✓29 Zone alarming reporting codes
✓30 Zone tamper reporting codes
✓31 System set/unset reporting codes
✓32 User set reporting codes
✓33 User disarm reporting codes
✓34 Maintenance and priority codes
✓35 Restoral reporting codes
✓36 Digicom codes
✓37 Keyswitch set configuration
✓38 Group reporting telephone allocation
✓39 NVM reset option
✓40 Follow Zone options

15 COMMUNICATION PROGRAMMING

Programmable Outputs

Programmable Output 1	Default Off	
Programmable Output 2	Default Off	

System Option 1	1	Default - End of line	
	2	Default - User Log Re-set disabled	
	3	Default - Tone Dial	
	4	Default - Internal sounder only on tamper activation	

System Option 2	1	Default - 24 hour test dial	
	2	Default - no-dial in	
	3	Default - Standard filters	
	4	Default - Audible P.A.	

System Option 3	1	Default - User NVM reset	
	2	Default - Open zones not displayed	
	3	Default - No alarm in line fail	
	4	Default - Telephone line monitoring off	

System Option 4	1	Default – No bell squawk	
	2	Default – Bell time mins	
	3	Default – AC fail warning	
	4	Default - Spare	

No. of Re-Sets	Default - Continuous	
Tel. No. 1		
Tel. No. 2		
Customer account code		
Download access code		

Event reporting Codes

Zone Alarm Reporting Codes.

Zone 1 Alarm	
Zone 2 Alarm	
Zone 3 Alarm	
Zone 4 Alarm	
Zone 5 Alarm	
Zone 6 Alarm	
Zone 7 Alarm	
Zone 8 Alarm	

Tamper Alarm Reporting Codes.

Zone 1 Tamper	
Zone 1 Tamper	
Zone 1 Tamper	
Zone 1 Tamper	
Zone 1 Tamper	
Zone 1 Tamper	
Zone 1 Tamper	
Zone 1 Tamper	

System Set / Unset Reporting Codes.

Set A	
Set B	
Set C	
Set D	
Duress Set	
Duress Unset	
Confirmed Alarm Code	

User Set Reporting Codes

Set User 1	
Set User 2	
Set User 3	
Set User 4	
Set User 5	
Set User 6	
Set User 7/Keyswitch	

User Unset Reporting Codes

Unset User 1	
Unset User 2	
Unset User 3	
Unset User 4	
Unset User 5	
Unset User 6	
Unset User 7/Keyswitch	

Maintenance and Priority Codes

P.A. Key	
Fire Key	
Engineer mode	
Bell Fuse Fail	
AUX Fuse Fail	
Battery Trouble	
AC Fail	
Keypress Tamper	

Restoral Reporting Codes

User code Restoral	
Bell Timeout Restoral	
Battery Restoral	
A.C. Restoral	
Test Transmission	

Digicom Codes	
Keyswitch Set Configuration	

Group Allocation

Group 1	
Group 2	
Group 3	
24hr. Test Call	

ATLAS 8 SERVICE HISTORY

ZONE LOOP RESISTANCE

DATE	ZONE 1	ZONE 2	ZONE 3	ZONE 4	ZONE 5	ZONE 6	ZONE 7	ZONE 8	INITIALS

POWER SUPPLY

DATE	NEW BATTERY	AUX CURRENT	BELL CURRENT	STROBE CURRENT	INITIALS
	YES				

8 ZONE PROGRAMMING STATUS LABEL

	ZONE 1	ZONE 2	ZONE 3	ZONE 4	ZONE 5	ZONE 6	ZONE 7	ZONE 8
ROOM								
SET A								
SET B								
SET C								
SET D								

STATUS KEY:

E = ENTRY / EXIT
A = ACCESS
t = TAMPER
I = IMMEDIATE
o = OMITTED
H = 24HOUR
F = FIRE
P = PERSONAL ATTACK
y = MOMENTARY KEYSWITCH
d = LATCH KEYSWITCH

ENTRY / EXIT TIME

SECS

BELL OUPUT

SAB SCB

BELL TIME

MINS

PIR LEDs

ENABLED
DISABLED

ENGINEER

INSTALLATION CO.